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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,608	10/31/2003	Timothy Alan Ascheman	45355-213	9856

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EXAMINER
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LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,608	<b>Applicant(s)</b> ASCHEMAN ET AL.	
	<b>Examiner</b> Daniel S. Larkin	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 12-20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of claims 1 and 21 in the reply filed on 10 January 2005 is acknowledged.
2. Claims 1-10, 12-20, and 22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10 January 2005.

### *Specification*

3. The disclosure is objected to because of the following informalities:  
Page 2, paragraph [0006], line 17: The term "Figure" should be corrected to read -- FIG. -- in order to maintain consistency with the other uses of the abbreviation.  
Page 5, paragraph [0010], line 1: The numeral "100" should be corrected to read -- one hundred --.  
Page 6, paragraph [0021], lines 10 and 24: The trademark "MYLAR" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.  
Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Page 6, paragraph [0021], line 12: The trademark "LEXAN" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Page 6, paragraph [0021], line 22: The numeral "100" should be corrected to read -- one hundred --.

Page 9, paragraph [0029], line 1: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 11, paragraph [0031], line 6: The numeral "100" should be corrected to read -- one hundred --.

Page 12, paragraph [0041], line 1: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 14, paragraph [0044], lines 1 and 4: The abbreviation "Fig." should be corrected to read -- FIG. --.

Page 14, paragraph [0044], line 17: The numeral "100" should be corrected to read -- one hundred --. Appropriate correction is required.

### ***Claim Objections***

4. Claim 21 is objected to because of the following informalities:

Re claim 21, claim line 21: The conjunction -- and -- should be inserted after the term "cell". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 11 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 11, claim 1: The claim recites an "apparatus for measuring the gas transmission rate"; however, the body of the claim makes no mention of the gas transmission rate and no correlation of the output of the mass spectrometer with the measuring of the gas transmission rate is recited.

Re claim 21, claim line 24: The phrase "significantly greater than" is a relative phrase which renders the claim indefinite. The phrase "significantly greater than" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,926,561 (Lucero).

With respect to the limitations of claim 11, the reference to Lucero discloses a device for performing gas analysis employing a semi-permeable membrane comprising: a test chamber (10) including a second housing part/upper diffusion cell (14) and a first housing part/lower diffusion cell (12) that when closed, as shown in Figure 1, forms a chamber wall seal, a gas inlet (40) and a gas outlet (54) in fluid communication with the first housing part/lower diffusion cell (12) and a mass spectrometer (84"), col. 12, lines 23-36, in communication with the second housing part/upper diffusion cell (14); a test material sample/permeable membrane (60) positioned between the second and first housing parts (14, 12); and a guard material/aluminum plate (66) positioned over the test material sample/permeable membrane (60) and immediately adjacent the second housing part/upper diffusion cell (14).

As to the limitation of having an upper diffusion cell and a lower diffusion cell, the examiner argues that orientating the device of Lucero ninety degrees would create a device having an upper and lower diffusion cell. As to the limitation of connecting the gas inlet and the gas outlet to the lower cell and the mass spectrometer to the upper diffusion cell, the examiner argues that changing the orientation/location of the parts would be within the requisite ability of one of ordinary skill in the art. Moreover, the apparatus of Lucero works in a similar fashion as applicants' device.

***Allowable Subject Matter***

9. The following is a statement of reasons for the indication of allowable subject matter:

Prior art was not relied upon to reject claim 21 because the prior art fails to teach and/or make obvious a method of measuring the gas transmission rate of a sealed manufactured package comprising the steps of: Placing a sealed package containing a test gas in a lower diffusing cell; selecting a guard material of a known type and positioning the guard material between the lower diffusion cell and an upper cell; positioning a support grid over the guard material and immediately adjacent the upper diffusion cell; and measuring the gas transmission rate of the sealed package in combination with all of the remaining limitations of the claim.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

The prior art to US 6,450,009 (Hartikainen et al.) discloses a method and device for measuring gas permeability through a porous membrane-like material comprising a gas source (18) having a valve (14) for introducing gas to a test chamber having an upper diffusion chamber (13) and a lower diffusion chamber (20) that when closed forms a chamber wall seal (29, 28). A test material (N) is placed between the seals (28, 29) and against a guard material/support (13.1) and immediately adjacent the upper diffusion chamber (13).

The prior art to US 6,119,506 (Gibson et al.) discloses an apparatus for determining transport properties of porous materials comprising a test chamber (10) having a upper diffusion cell (12) and a lower diffusion cell (18) that when closed forms a chamber wall seal, col. 7, lines 17-19, a gas inlet (38) and a gas outlet in fluid communication with both the lower diffusion cell (18) and the upper diffusion cell (12); and a sample (50) positioned between the upper (12) and lower (18) diffusion cells; and a guard material/clamping plate (14, 16) positioned over and under the sample (50) and immediately adjacent the upper (12) and lower (18) diffusion cells.

The prior art to US 5,817,924 (Tuomela et al.) discloses an apparatus for measuring Oxygen transmission through contact lenses comprising a test chamber having a upper diffusion cell (10) and a lower diffusion cell (38) that when closed forms a chamber wall seal, a gas inlet (12) and a gas outlet (14) in fluid communication with the upper diffusion cell (10), a gas inlet (32) and a gas outlet (34) in fluid communication with the lower diffusion cell (38) and a detector in communication with the lower diffusion cell (38); and a sample (60) positioned between the upper (10) and lower (38) diffusion cells; and a guard material (50) positioned over the sample (50) and immediately adjacent the upper (10) diffusion cell.

The prior art to US 6,640,615 (Morrow) discloses a system for determining the integrity of a package or packaging material based on its transmission of a test gas. A package filled with a test gas is placed within a chamber, which is evacuated with the gas emanating from the package being sent to a mass spectrometer.



The prior art to US 4,464,927 (Reid) discloses an apparatus for measuring gas transmission through films comprising placing the films between upper and lower diffusion cells.

The prior art to JP 62-119433 (Masuda) discloses an apparatus for measuring a hydrogen transmission coefficient for film comprising a gas chamber (1) and a measuring chamber (3).

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin  
AU 2856  
17 February 2005



DANIEL S. LARKIN  
PRIMARY EXAMINER